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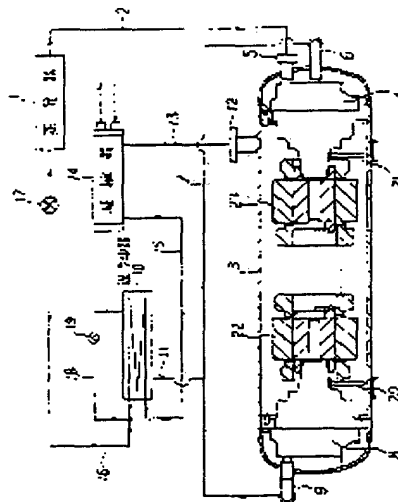
(21)Application number : 63-292162 (71)Applicant : HITACHI LTD
(22)Date of filing : 18.11.1988 (72)Inventor : NAGATA KIMIO
IZUSHI MINETOSHI

(54) TWO-STAGE COMPRESSOR

(57)Abstract:

PURPOSE: To enable the desirable following of the title compressor against the change of working conditions by providing a low-stage compressor on the one side in a casing and a high-stage compressor on the other side in the same casing and driving variably at least one of the respective driving motors by inverter control.

CONSTITUTION: Low-stage intake gas inhaled from the outside of a casing 3 is compressed at a low-stage compressor 4, discharged immediately outside the casing 3 and fed to a high-stage compressor 8 from a high stage inlet 9 without receiving the heating of a low-stage compressor driving motor 23. The compressed gas from the high-stage compressor 8 is discharged into the casing 3 and fed to a condenser 14 from a discharge opening 12 after cooling both high and low pressure driving motor 22, 23. Each rotating speed of these driving motors is inverter controlled so as to enable the matching control and the capacity control of the compressors 4, 8. Moreover, as both low-stage and high-stage compressors 4, 8 are prevented from the cubical expansion of refrigerant gas caused by the motors 22, 23, volumetric efficiency is prevented from being lowered.



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